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09/558,787	04/26/2000	Yuriko Kishitaka	SONYJP3.0-114	1701

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EXAMINER

LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/558,787

Applicant(s)

KISHITAKA ET AL.

Examiner

Hunter B. Lonsberry

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4-7 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 11/12/2003 have been fully considered but they are not persuasive.

1) Applicant argues that the combination of Metz, Howe and Raychaudhuri does not disclose executing a buffer sizing program when a device's power is turned on, and that Raychaudhuri teaches the opposite, and performs it during call set u. (Pages 6-8).

Regarding applicant's argument 1, claim 1, merely requires a program which describes an optimal buffer size that is executed when the main power of the receiver is switched on. Claim 1 is silent as to whether the program is executed, the last time the receiver was powered up, 5 minutes after the receiver was powered up, immediately after it was powered up, or anything regarding the time period in which the buffer sizing program is to be performed. It appears that the applicant is arguing broader than the new claim limitation which has been added to claims 1, 7 and 13. As Raychaudhuri discloses that the buffer size is set up during a call set up time, dependant upon the peak data rate of a CBR/VBR/ABR service class, the base station in Raychaudhuri must be switched on or powered on, in order to receive the data and to set up the call. Power must be supplied to a processor within Raychaudhuri in order for it to perform the setup function, without power, the data may be transmitted to the base station, but the base station would be unable to interpret the data. The combination of Howe, Metz and Raychaudhuri would result in a receiver which, while in a powered on state, would reserve an optimal buffer size for an incoming data stream.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-7, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,892,508 to Howe in view of U.S. Patent 5,978,855 to Metz and U.S. Patent 5,684,791 to Raychaudhuri.

Regarding claims 1, 6, 7, 12, 13 and 15, Howe discloses a set top box 100 in figure 8 which receives an analog or digital video signal, a digital tuner 1218 supplies a digital video signal to video decoder 1220, CPU 1228 manages and controls set top box 100 and is connected to memory 1229 and 1230 (column 20, line 46-column 22, line 52). Howe does not disclose determining an optimal buffer size that depends on a streams bitrate, but does disclose the use of ATM and MPEG 2 for video transmission (column 9, lines 7-65). Metz discloses in Figure 6, a Set top box 100, which receives MPEG 2 video encapsulated in ATM cells that encapsulated by ATM multiplexer 29, an ATM demux and MPEG system demux 127 within the STB 100 reassembles the MPEG video/audio prior to it being supplied to audio decoder 131 and video decoder 129 (column 16, line 48-column 17, line 16, column 32, lines 4-31). Metz inherently includes a buffer, as a buffer is required to store the ATM cells prior to reassembling the cells into MPEG 2 streams. Raychaudhuri discloses a data link control layer in which buffer size is determined by the bit rate for the transmitted ATM stream (column 7, line 35-

Art Unit: 2611

column 8, line 3). Therefore it would have been obvious to one skilled in the art at the time of invention to modify Howe to transmit MPEG 2 video encapsulated in ATM cells which is converted back into MPEG 2 video at the Set Top Box as taught by Metz and to include the ATM buffer size bit rate determination as taught by Raychaudhuri, thus insuring that a buffer would not underflow/overflow resulting in the improper display of a video image.

Regarding claims 4, 5, 10, and 11, Howe discloses the use of non-volatile memory 1214 for storing information (column 21, lines 1-29). Howe does not disclose storing the buffer size-determining program in non-volatile memory, but does disclose memory 1229 and 1230 for storing system software (column 22, lines 11-29). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Howe/Metz to utilize non-volatile memory for storing system software and the buffer sizing feature of Raychaudhuri, thus insuring that the buffer sizing function would be enabled even after powering the receiver on/off.

Regarding claim 14, Howe discloses a set top box 100 in figure 8, which receives an analog or digital video signal. Metz discloses a STB 100, which converts, received ATM cells back into their original MPEG 2 streams. Raychaudhuri discloses that the buffer size determination is made as part of the Data link Control layer in a wireless ATM system. Raychaudhuri's DLC layer is inherently part of a program to be executed by the processor as the DLC layer is part of the header file for a packet and programming is required in order to recognize that layer. Raychaudhuri inherently executes the buffer sizing program when the power is turned on as Raychaudhuri

Art Unit: 2611

detects the type of data being received and allocates the buffer sized based upon the bit rate, if Raychaudhuri did not check that function and received various streams of different bit rates, the buffer would over/underflow.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-308-5359.

Application/Control Number: 09/558,787

Page 6

Art Unit: 2611

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

HBL



VICTOR R. KOSTAK  
PRIMARY EXAMINER